

UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF MICHIGAN
SOUTHERN DIVISION

SCHMALZ, INC.,

Plaintiff,

v.

Case No.: 16-10040
Honorable Gershwin A. Drain

BETTER VACUUM CUPS, INC.,

Defendant.

_____/

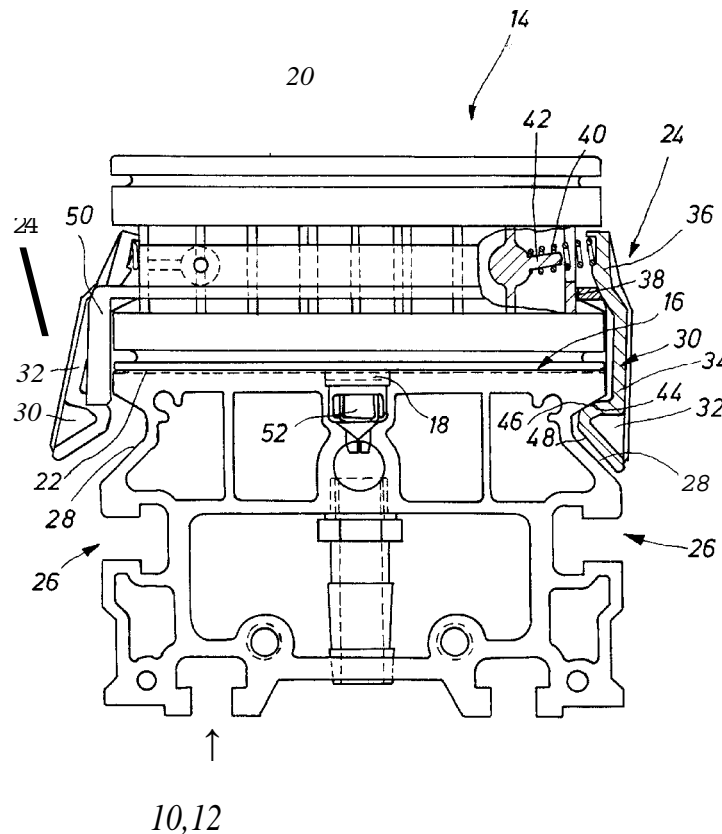
ORDER REGARDING CLAIM CONSTRUCTION

I. INTRODUCTION

This matter is before the Court for claim construction relative to United States Patent No. 6,364,299 B1 (“the ‘299 patent”). A *Markman* hearing was held on May 30, 2017. *See Markman v. West View Instruments, Inc.*, 517 U.S. 370 (1996). The ‘299 patent relates to a Vacuum Holding Apparatus and Plaintiff is the owner by assignment of all right, title and interest to the ‘299 patent. Plaintiff alleges that Defendant has directly and/or indirectly infringed (by inducement and/or contributory infringement) the ‘299 patent by making, using, offering for sale, selling and distributing products that infringe at least claims 1, 8, 9, 10 and 12 of the subject patent.

II. TECHNOLOGY BACKGROUND

The '299 patent describes and claims a vacuum holding apparatus. The '299 patent specification contains one drawing of the patented invention.



The base is designated at 10 and is also referred to as a spreader beam at 12. The suction unit is designated at 14. The base has an upper gripping service at 16 onto which the suction unit at 14 is placed and from which a vacuum connection at 18 opens. The suction unit at 14 has a first gripping surface at 20 on which a workpiece can be placed and a second gripping surface which engages the base at 10. The suction unit is provided with a mechanical holding means which allows it to mechanically connect to the base. The longitudinal sides of the spreader beam

at 12 have a groove with which a catch at 30 of the holding means engages.

Independent claim 1 of the '299 patent reads as follows (disputed terms in bold):

1. **Vacuum holding apparatus**, comprising:

at least one **base**,

a suction unit, directly supported by the base, onto which a workpiece to be fastened can be placed and held thereon by the means of a vacuum, wherein the suction unit includes a first gripping service on a side facing the workpiece and a second gripping service on a side facing the base, wherein the suction unit is provided with at least one **mechanical holding means for attachment to the base**,

wherein the holding means includes a **clamping lever**.

Dependent claims 8,9 and 10 read as follows:

8. **Vacuum holding apparatus** in accordance with claim 1, wherein the **clamping lever** is **hingedly attached** to the suction unit.

9. **Vacuum holding apparatus** in accordance with claim 8, wherein the hinge is a **film hinge**.

10. **Vacuum holding apparatus** in accordance with claim 1, wherein the **clamping lever** is one piece.

Independent claim 12 reads as follows:

12. **Vacuum holding apparatus**, comprising:

at least one **base**,

a suction unit, directly supported by the base, onto which a workpiece to be fastened can be placed and held thereon by the means of a vacuum, wherein the suction unit includes a first gripping surface on a side facing the workpiece and a second gripping surface on a side facing the base, wherein the suction unit is provided with at least one **mechanical holding means** for attachment to the base,

wherein the two gripping surfaces are connected to each other with a pressure-control valve, wherein when a vacuum is applied at the second gripping surface, the pressure-control valve opens at a predetermined vacuum level.

III. CLAIM CONSTRUCTION

A. Standard of Review

A determination of infringement requires a two-step analysis. *Gentry Gallery, Inc. v. Berkline Corp.*, 134 F. 3d 1473, 1476 (Fed. Cir. 1998). “First, the claim must be properly construed to determine its scope and meaning. Second, the claim as properly construed must be compared to the accused device or process.” *Id.* Claim construction is an issue of law. *Markman*, 517 U.S.at 388-90. In interpreting claims, a court “should look first to the intrinsic evidence of record, i.e., the patent itself, including the claims, the specification and, if in evidence, the prosecution history.” *Vitronics Corp. v. Conceptronic, Inc.*, 90 F. 3d 1576, 1582 (Fed. Cir. 1996). Absent an express intent to impart a novel meaning, “terms in a claim are to be given their ordinary and accustomed meaning.” *Renishaw PLC v. Marposs Societa’ per Azioni*, 158 F. 3d 1243, 1249 (Fed. Cir. 1998); *CCS Fitness*,

Inc. v. Brunswick Corp., 288 F.3d 1359, 1366 (Fed. Cir. 2002)(“Generally speaking, we indulge a ‘heavy presumption’ that a claim term carries its ordinary and customary meaning.”). It is the claims that measure the invention. *SRI Int’l v. Matsushita Elec. Corp.*, 775 F. 2d 1107, 1121 (Fed. Cir. 1985).

Additionally, the presumption that a claim term should be given its plain and ordinary meaning can be overcome in two instances, specifically “1) when a patentee sets out a definition and acts as his own lexicographer, or 2) when the patentee disavows the full scope of a claim term either in the specification or during prosecution.” *Thorner v. Sony Computer Entm’t Am. LLC*, 669 F.3d 1362, 1365 (Fed. Cir. 2012). Disclaimer and disavowal are applicable only when the applicant “clearly and unambiguously” disclaims or disavows claim scope. *See Middleton, Inc. v. Minn. Mining & Mfg. Co.*, 311 F.3d 1384, 1388 (Fed. Cir. 2002); *Teleflex, Inc. v. Ficos N. Am. Corp.*, 299 F.3d 1313, 1325 (Fed. Cir. 2002).

Although accorded less weight than intrinsic evidence, extrinsic evidence, such as expert testimony, dictionaries, and treatises, can also be helpful. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1317 (Fed. Cir. 2005). Therefore, extrinsic evidence “may be considered if the court deems it helpful,” provided the court “attach[es] the appropriate weight” to extrinsic sources “in light of the statutes and policies that inform patent law.” *Id.* at 1317-18, 1324.

Claim construction always begins with the language of the claim and asks “how a person of ordinary skill in the art understands a claim term.” *Id.* A “person of ordinary skill in the art is deemed to read the claim term not only in the context of the particular claim in which the disputed term appears, but in the context of the entire patent, including the specification.” *Id.* at 1313. It is “improper to read [a claim] term to encompass a broader definition” than the ordinary and customary meaning revealed by the context of the intrinsic record.” *Nystrom v. Trex Co.*, 424 F.3d 1136, 1145 (Fed. Cir. 2005). Indeed, “[c]laims cannot be of broader scope than the invention set forth in the specification.” *Id.*

The prosecution history “inform[s] the meaning of the claim language by demonstrating how the inventor understood the invention and whether the inventor limited the invention in the course of prosecution, making the claim scope narrower than it would otherwise be.” *Phillips*, 415 F.3d at 1317. The Federal Circuit has held:

The purpose of consulting the prosecution history in construing a claim is to exclude any interpretation that was disclaimed during prosecution. Accordingly, where the patentee has unequivocally disavowed a certain meaning to obtain his patent, the doctrine of prosecution disclaimer attaches and narrows the ordinary meaning of the claim congruent with the scope of the surrender. Such a use of the prosecutions history ensures that claims are not construed one way in order to obtain their allowance and in a different way against accused infringers.

Chimie v. PPG Indus., 402 F.3d 1371, 1384 (Fed. Cir. 2005).

B. Disputed Terms

1. “Vacuum holding apparatus”

Claim(s)	Plaintiff’s Proposed Construction	Defendant’s Proposed Construction
1, 8, 9, 10 and 12	Plain and Ordinary Meaning	“A device including a base and a suction unit for holding a workpiece by vacuum”

The term “vacuum holding apparatus” is in the preamble of Claims 1 and 12. Plaintiff argues that this claim term should be given its plain and ordinary meaning. Plaintiff asserts that preambles are generally not construed and have no limiting effect where, as in the ‘299 patent, “the preamble merely gives a descriptive name to the set of limitations in the body of the claim that completely sets forth the invention.” *IMS Tech., Inc v. Haas Automation, Inc.*, 206 F.3d 1422, 1434 (Fed. Cir. 2000); *see also Catalina Mktg. Int’l v. Coolsavings.com., Inc.*, 289 F.3d 801, 808 (Fed. Cir. 2002) (“In general, a preamble limits the invention if it recites essential structure or steps, or if it is necessary to give life, meaning, and vitality to the claim[.]” however it “is not limiting where a patentee defines a structurally complete invention in the claim body and uses the preamble only to state a purpose or intended use for the invention.”).

Defendant counters that the preamble disavowed a claim scope where a vacuum holding apparatus could be free of a base. Defendant maintains that the preamble limits the claims to include a vacuum holding apparatus consisting of a base and a suction unit, as separately claimed elements, on which a workpiece is held by a vacuum. Defendant argues that its proposed construction is clarifying in view of the disavowals Plaintiff made in the specification.

Specifically, Defendant relies on the ‘299’s patent language stating that:

The invention generally relates to vacuum holding apparatus and more particularly relates to a vacuum holding apparatus having at least one base and a suction unit supported by the base, upon which the workpiece to be held can be placed.

Pg ID 711, Col. 1, lns. 4-8.

Defendant further asserts that the patentee distinguished the ‘299 patent with its prior art vacuum holding apparatus, WO 99 20 437, which had the disadvantage of displacement of the suction units. *Id.* at Col. 1, lns. 41-47. This disadvantage is addressed in the ‘299 patent by including a mechanical holding means with the suction unit so that it attaches to the base. *Id.* at Col 1, lns. 48-52 (“This task is accomplished in accordance with the invention in that in [sic] the vacuum holding apparatus of the initially mentioned type, the suction unit is provided with at least one mechanical holding means for attachment to the base.”). Based on the specification’s description, Defendant argues that it is “clear Plaintiff

disavowed claim scope where a vacuum holding apparatus could be free of a base.”

Defendant’s argument is not well taken. “In general, a preamble limits the invention if it recites essential structure or steps, or if it is necessary to give life, meaning, and vitality to the claim.” *Catalina Marketing Int’l, Inc. v. Coolsavings.com, Inc.*, 289 F.3d 801, 808 (Fed. Cir. 2002) (internal quotation marks omitted). A preamble will not limit the claim scope if the “patentee defines a structurally complete invention in the claim body and uses the preamble only to state a purpose or intended use for the invention.” *Id.* Additionally, a preamble is not limiting “when the claim body describes a structurally complete invention such that deletion of the preamble phrase does not affect the structure or steps of the claimed invention.” *Id.* at 809 (citing *IMS Tech., Inc.*, 206 F.3d at 1434 (“preamble phrase ‘control apparatus’ does not limit claim where it merely gives a name to the structurally complete invention.”)).

Here, Claims 1 and 12 describe a structurally complete invention. As in *IMS Tech.*, the preamble of the ‘299 Patent’s Claims 1 and 12 does not limit the invention to a vacuum holding apparatus and a base, rather it merely provides a name for the structurally complete invention. *Id.* Therefore, the Court concludes the term “vacuum holding apparatus” should be given its plain and ordinary meaning, thus no construction of this claim term is necessary.

2. “Base”

Claim(s)	Plaintiff’s Proposed Construction	Defendant’s Proposed Construction
1, 12	Plain and Ordinary Meaning	“A support structure configured to have a vacuum connection with the suction unit.”

Plaintiff argues that the term “base” is a simple term that does not require construction to understand. Plaintiff maintains that Defendant’s construction impermissibly adds “vacuum connection with the suction unit.” Plaintiff asserts that this structure is not actually recited in the claims nor does the intrinsic record support Defendant’s proposed construction. Plaintiff refutes Defendant’s contention that the invention will not work if the base does not include a vacuum connection.

Conversely, Defendant argues that there are multiple places in the ‘299 patent specification supporting the requirement that the invention will not work if the “base” lacks a vacuum connection. *See* Ex. 1, Fig. 1, 1:4-8, 19-59, 2:54-58, 3:1-29. For instance, in Column 1, lines 19-23, the patentee described its prior art vacuum holding apparatus as comprising a “base [that] has a vacuum support on which the suction unit can be placed.” Pg ID 711 at 1:19-23. Moreover, the patent specification indicates that “it is the object of the invention to make available a

vacuum holding apparatus in which the suction units are held on the base by means of a vacuum” *Id.* at 1:41-43. Lastly, the patentee explained in regard to its drawing of the invention in Figure 1 that “[t]he base has an upper gripping service onto which the suction unit can be placed **and from which a vacuum connection opens.**” Pg ID 711, 2:56-59 (emphasis supplied).

Defendant further argues that Plaintiff admitted to the PTO that it did not intend to alter the “base” of the ‘299 patent from the prior art it referenced in the specification. However, Defendant’s argument is less than clear. Specifically, Defendant relies on the patentee’s response to the PTO stating that “there is no teaching or motivation to modify the Ciprolla device to include the “base” of the WO 99/20437 reference.” Defendant maintains that the base of the prior art [WO 99/20437 reference] includes an opening to create a vacuum and the ‘299 patent’s base also has an opening to create a vacuum.

Contrary to Defendant’s position, its proposed construction for the term “base” impermissibly adds additional structure of “vacuum connection with the suction unit.” This added structure is nowhere recited in the claims. Substituting Defendant’s proposed construction in place of the simple term “base” creates a nonsensical combination, thus it is not an accurate construction of the claim.

Moreover, Defendant’s attempt to argue that prosecution history estoppel

applies is not well taken. Argument-based estoppel arises when a patentee makes arguments during prosecution that show a “clear and unmistakable surrender of subject matter.” *Bayer AG v. Elan Pharm. Research Corp.*, 212 F.3d 1241, 1252 (Fed. Cir. 2000). This is an objective determination made in view of the prosecution history as a whole. *Id.* The question is whether “a competitor would reasonably believe that the applicant had surrendered the relevant subject matter.” *Id.* (quoting *Cybor Corp. v. FAS Technologies*, 138 F.3d 1448, 1457 (Fed. Cir. 1998)). There is nothing in the prosecution history to suggest that the patentee meant that the novelty of the ‘299 Patent was that having a base is required to be novel over the prior art.

Based on the foregoing, the claim term “base” should be given its plain and ordinary meaning.

3. “Mechanical holding means for attachment to the base”¹

Claim(s)	Plaintiff’s Proposed Construction	Defendant’s Proposed Construction
1	Plain and Ordinary Meaning	“Holding structure that mechanically engages with

¹ The use of the term “means” in a claim triggers a presumption that the claim term be interpreted under 35 U.S.C. § 112(f). *Phillips v. AHW Corp.*, 415 F.3d at 1309. The presumption may be rebutted where the claim recites additional and sufficient structure. *Id.* at 1311. Claim 1 recites the additional structure of a clamping lever. Thus, the additional language of claim 1 rebuts the presumption and may be construed under typical *Phillips* rubric.

		the base”
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The phrase “mechanical holding means” is in both claims 1 and 12. Plaintiff argues that the term “mechanical holding means for attachment to the base” does not require construction and should be given its plain and ordinary meaning. Plaintiff maintains that Defendant’s proposed construction improperly changes the meaning of the claim term, makes the remaining claim language redundant and makes the claim unintelligible.

Defendant’s proposed construction specifically requires mechanical engagement with the base. Defendant maintains that the mechanical engagement is an important feature of the ‘299 patent that differentiates the ‘299 patent with the prior art referenced in the specification. The specification describes the preferred embodiment as including a suction unit with holding means on both sides, wherein the holding means can mechanically connect to the base. The specification further indicates that to meet this purpose of mechanical connection, the base has “a holding means, which is the form of a clamping lever, engages. Pg ID 711 at 2:66-67; Pg ID 712 at 3:1-6; see also 2:31-34 (“The holding arm is deflected across this load ramp and, upon placement of the suction unit on the base, locks into the desired locked position, in which a load catch engages with the longitudinal groove.”). As such, Defendant asserts that the intrinsic evidence compels an

interpretation that a mechanical engagement between a holding structure and base is required to achieve the patent's purpose.

Here again, Defendant improperly attempts to attribute undefined structure to a claim term that is readily understandable on its face. Defendant's construction "contributes nothing but meaningless verbiage to the definition of the claimed invention." *Harris Corp. v. IXYS Corp.*, 114 F.3d 1149, 1152 (Fed. Cir. 1997). It does not provide clarity to understanding what the claim term means, rather it adds ambiguity because it is not clear what "holding structure" or "mechanically engages" mean. As such, "mechanical holding means for attachment to the base" should be given its plain and ordinary meaning.

4. "Clamping Lever"

Claim(s)	Plaintiff's Proposed Construction	Defendant's Proposed Construction
1, 8, 10	Plain and Ordinary Meaning	"Holding arm with structure that engages with the base"

Plaintiff argues that the term "clamping lever" is a simple term that does not require construction. The terms "clamping" and "lever" have well known meaning. Plaintiff asserts that Defendant's proposed construction attempts to replace this plain and ordinary meaning with a definition that avoids "clamping" and impermissibly changes the scope of the claim.

Defendant counters that its proposed construction is informed by the intrinsic evidence. For instance, the specification states that the clamping lever “has, in particular, a holding arm that engages with the base and a guide rod opposite the pivot bearing point.” Pg ID 711, Col. 2, lns. 16-18. Defendant argues that Plaintiff’s argument does not consider the specification. Defendant further maintains that Plaintiff specifically disclaimed that the “clamping lever” is pivotable during the prosecution of the ‘299 patent. Specifically, Defendant indicated that:

Claim [1] has been amended to incorporate substantially all of the limitations of claim 17 except that the clamping lever is no longer described as a “pivotable” clamping lever. The art of record does not teach or suggest a “holding means including a clamping lever” as is now stated in claim [1] and accordingly stating that the clamping lever is pivotable is not necessary in order to distinguish over the art of record.

Pg Id 661. However, contrary to Defendant’s argument, it is not clear that the patentee intended to disclaim the presence of a pivot in the “clamping lever” of claim 1. The patent history suggests only that the clamping lever need not include a pivot, and not that the clamping lever never includes a pivot.

Based on the foregoing, the Court concludes that Defendant’s proposed construction creates a definition that renders the term less clear. The term “clamping lever” is a simple term that does not require construction. The terms

“clamping” and “lever” have well known simple meanings that are “readily apparent.” *Phillips*, 415 F.3d at 1313. Defendant’s construction replaces these simple and ordinary meanings with a construction that avoids “clamping” and improperly changes the scope of the claim contrary to law. *See Am. Piledriving Equip., Inc. v. Geoquip, Inc.*, 637 F.3d 1324, 1331 (Fed. Cir. 2011). Thus, “clamping lever” should be given its plain and ordinary meaning.

5. “Hingedly attached”

Claim(s)	Plaintiff’s Proposed Construction	Defendant’s Proposed Construction
8	Plain and Ordinary Meaning	“Connected by a jointed or flexible device on which a swinging member turns”

Plaintiff argues that no special construction is necessary for the claim phrase “hingedly attached.” Plaintiff argues that Defendant’s proposed construction unnecessarily limits the plain and ordinary meaning of the term and introduces a new term—swinging member—that itself requires construction. The term swinging member is nowhere to be found in the intrinsic record.

Conversely, Defendant maintains that its proposed construction is supported by Figure 1 wherein the clamping lever 32 is pivotally connected to the suction unit at pivot bearing 38. Defendant also relies on the specification language, which

states, “[p]referably, the clamping lever is attached by way of a hinge at the suction unit. The hinge makes possible a problem free deflection of the clamping lever” Pg ID 711, 2:35-36. Defendant also relies on extrinsic evidence in support of its proposed construction. Specifically, Webster’s dictionary defines “hinge” to mean “a joint or device upon which a member, such as a door or gate, swings.” See Plf.’s Opening Br., Ex. 6.

Based on the foregoing, the Court concludes that “hingedly attached” should be given its plain and ordinary meaning. Defendant’s proposed construction will require the parties to litigate the meaning of the term “swinging member turns” because it is not clear. *See STMicroelectronics, Inc. v. Motorola, Inc.*, 327 F. Supp. 2d 687, 705 (E.D. Tex. 2004) (rejecting construction where part of the construction itself would still need to be construed.) Additionally, Defendant’s reliance on extrinsic evidence is inappropriate under the circumstances. “In those cases where the public record unambiguously describes the scope of the patented invention, reliance on any extrinsic evidence is improper.” *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1583 (Fed. Cir. 1996). Indeed, Defendant states in its brief that “hingedly attached” means attached by a hinge. Pg ID 1114 at 12. This further supports Plaintiff’s argument that “hingedly attached” is clear on its face and does not require construction. Accordingly, the term “hingedly attached” should be given its plain and ordinary meaning.

6. “Film hinge”

Claim(s)	Plaintiff’s Proposed Construction	Defendant’s Proposed Construction
9	Plain and Ordinary Meaning	“A flexible device connecting two components on which a swinging member turns”

Plaintiff argues that the claim phrase “film hinge” is clear on its face and does not require construction. Plaintiff asserts that Defendant’s proposed construction introduces new elements that are undefined in the intrinsic record. Specifically, if the Court were to adopt Defendant’s proposed construction, Plaintiff maintains that the parties will be required to litigate the meaning of “components on which a swinging member turns.”

Conversely, Defendant argues that its construction is supported by the intrinsic record. Defendant’s argument rests on its proposed construction for the term “hingedly attached,” which this Court has already rejected. Defendant further relies on extrinsic dictionary evidence in support of its proposed construction. For the reasons articulated above rejecting Defendant’s proposed construction for “hingedly attached” are applicable to the instant disputed term. Defendant’s proposed construction is inappropriate because it would require the Court to construe the meaning of “swinging member” and it erroneously relies on extrinsic

evidence. For these reasons, the Court will give the claim phrase “film hinge” its plain and ordinary meaning.

7. “Mechanical holding means”

Claim(s)	Plaintiff’s Proposed Construction	Defendant’s Proposed Construction
12	Plain and Ordinary Meaning. Alternatively, if the term is to be considered under a means plus function analysis, it should be construed as “clamping lever” which is consistent with claim 1.	Statutory interpretation 35 U.S.C. § 112(f) Function: for attachment to the base Corresponding structure: a one-piece holding arm and a spring-loaded guide rod that is pivotally mounted onto the suction unit and includes a catch, which operate together [for attachment to the base].

Here again, “mechanical holding means” is another term that is clear on its face and does not require construction. Title 35 U.S.C. § 112(f) is inapplicable when considering the other claims and the specification for defining the term. In claim 1, Defendant admits that “mechanical holding means” does not require construction under 35 U.S.C. § 112(f) because it is an adequate structure—it is a

clamping lever. Defendant is trying to add structure from various alternative embodiments that are not required for “mechanical holding means.”

It would create an inconsistency and violate the doctrine of claim differentiation if the Court were to adopt Defendant’s proposed construction. For instance, dependent claim 3 (which depends from claim 1) provides “wherein the holding means has a spring loaded rest position.” Dependent claim 5 specifically provides that “the clamping lever includes a holding arm engaging the base, and includes a guide rod which is opposite a pivot bearing point.” As such, mechanical holding means cannot already include these structures if they are already described in the dependent claims. *GE Lighting Solutions, LLC v. AgiLight, Inc.*, 750 F.3d 1304 (Fed. Cir. 2014) (“The doctrine of claim differentiation, however, creates a presumption that these dependent claim limitations are not included in the independent claim.”).

Accordingly, the claim term “mechanical holding means” does not require construction and will be given its plain and ordinary meaning.

IV. CONCLUSION

Accordingly, the disputed claim terms shall all be given their plain and ordinary meaning.

SO ORDERED.

Dated: September 6, 2017

/s/Gershwin A. Drain
GERSHWIN A. DRAIN
United States District Judge

CERTIFICATE OF SERVICE

Copies of this Order were served upon attorneys of record on
September 6, 2017, by electronic and/or ordinary mail.

/s/ Tanya Bankston
Deputy Clerk